

STATE OF SOUTH CAROLINA

(Caption of Case)  
In the Matter of:

Application of Duke Energy Carolinas,  
LLC for Approval of Energy Efficiency  
Plan Including an Energy Efficiency Rider  
and Portfolio of Energy Efficiency Programs

BEFORE THE  
PUBLIC SERVICE COMMISSION  
OF SOUTH CAROLINA

COVER SHEET

DOCKET

NUMBER: 2007 - 358 - E

(Please type or print)

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**DOCKETING INFORMATION** (Check all that apply)

- ☐ Emergency Relief demanded in petition      ☐ Request for item to be placed on Commission's Agenda expeditiously
- ☐ Other: \_\_\_\_\_

INDUSTRY (Check one)	NATURE OF ACTION (Check all that apply)			
<input checked="" type="checkbox"/> Electric	<input type="checkbox"/> Affidavit	<input type="checkbox"/> Letter	<input type="checkbox"/> Request	
<input type="checkbox"/> Electric/Gas	<input type="checkbox"/> Agreement	<input type="checkbox"/> Memorandum	<input type="checkbox"/> Request for Certification	
<input type="checkbox"/> Electric/Telecommunications	<input type="checkbox"/> Answer	<input type="checkbox"/> Motion	<input type="checkbox"/> Request for Investigation	
<input type="checkbox"/> Electric/Water	<input type="checkbox"/> Appellate Review	<input type="checkbox"/> Objection	<input type="checkbox"/> Resale Agreement	
<input type="checkbox"/> Electric/Water/Telecom.	<input type="checkbox"/> Application	<input type="checkbox"/> Petition	<input type="checkbox"/> Resale Amendment	
<input type="checkbox"/> Electric/Water/Sewer	<input type="checkbox"/> Brief	<input type="checkbox"/> Petition for Reconsideration	<input type="checkbox"/> Reservation Letter	
<input type="checkbox"/> Gas	<input type="checkbox"/> Certificate	<input type="checkbox"/> Petition for Rulemaking	<input type="checkbox"/> Response	
<input type="checkbox"/> Railroad	<input type="checkbox"/> Comments	<input type="checkbox"/> Petition for Rule to Show Cause	<input type="checkbox"/> Response to Discovery	
<input type="checkbox"/> Sewer	<input type="checkbox"/> Complaint	<input type="checkbox"/> Petition to Intervene	<input type="checkbox"/> Return to Petition	
<input type="checkbox"/> Telecommunications	<input type="checkbox"/> Consent Order	<input type="checkbox"/> Petition to Intervene Out of Time	<input type="checkbox"/> Stipulation	
<input type="checkbox"/> Transportation	<input type="checkbox"/> Discovery	<input checked="" type="checkbox"/> Prefiled Testimony	<input type="checkbox"/> Subpoena	
<input type="checkbox"/> Water	<input type="checkbox"/> Exhibit	<input type="checkbox"/> Promotion	<input type="checkbox"/> Tariff	
<input type="checkbox"/> Water/Sewer	<input type="checkbox"/> Expedited Consideration	<input type="checkbox"/> Proposed Order	<input type="checkbox"/> Other:	
<input type="checkbox"/> Administrative Matter	<input type="checkbox"/> Interconnection Agreement	<input type="checkbox"/> Protest		
<input type="checkbox"/> Other:	<input type="checkbox"/> Interconnection Amendment	<input type="checkbox"/> Publisher's Affidavit		
	<input type="checkbox"/> Late-Filed Exhibit	<input type="checkbox"/> Report		

STATE OF SOUTH CAROLINA  
BEFORE THE PUBLIC SERVICE COMMISSION  
DOCKET NO. 2007-358-E

In the Matter of:	)	SURREBUTTAL TESTIMONY OF
	)	DAVID NICHOLS ON BEHALF OF
Application of Duke Energy	)	ENVIRONMENTAL DEFENSE, THE
Carolinas, LLC for Approval of	)	SOUTH CAROLINA COASTAL
Energy Efficiency Plan Including an	)	CONSERVATION LEAGUE,
Energy Efficiency Rider and Portfolio	)	SOUTHERN ALLIANCE FOR CLEAN
of Energy Efficiency Programs	)	ENERGY AND THE SOUTHERN
	)	ENVIRONMENTAL LAW CENTER
	)	

1 **Q. PLEASE STATE YOUR NAME, ADDRESS AND AFFILIATION.**

2 A. My name is David Nichols. I am Senior Consultant with Synapse Energy  
3 Economics, Inc., 22 Pearl Street, Cambridge, Massachusetts 02139.

4 **Q. HAVE YOU PREVIOUSLY FILED TESTIMONY IN THIS DOCKET?**

5 A. Yes, I provided direct testimony on behalf of Environmental Defense (“ED”), the  
6 South Carolina Coastal Conservation League (“CCL”), the Southern Environmental Law  
7 Center (“SELC”), and Southern Alliance for Clean Energy (“SACE”).

8 **Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?**

9 A. My purpose is to reply to certain statements made in the pre-filed rebuttal  
10 testimony of Duke Energy Carolinas, LLC (“Duke” or the “Company”) witnesses.

11 **Q. DO YOU AGREE WITH DUKE WITNESS ROGERS THAT SAVE-A-WATT IS**  
12 **NOT A RADICAL PROPOSAL?**

13 A. No, I do not. In my direct testimony, I stated that the Save-A-Watt proposal  
14 represents a radical departure from established principles of cost-based ratemaking. On  
15 page 4 of his rebuttal testimony, Duke Witness Rogers states that Save-A-Watt is not  
16 radical because it relies on “traditional PURPA avoided cost pricing.[.]”

17 I certainly agree that Save-A-Watt relies on PURPA avoided cost pricing.  
18 However, the basis on which PURPA purchases are made differs from the basis on which  
19 regulated electric utilities are paid for what they sell. PURPA rates apply only to  
20 unregulated third parties. The Save-A-Watt proposal to turn around and make PURPA-  
21 type payments back to the regulated utility is a completely unprecedented proposal.

22 Duke is asking ratepayers to compensate the Company as if it were an  
23 unregulated third party. There is nothing traditional about this proposal. By contrast, my

1 position is that when rates are set for regulated utilities, they must be set on the  
2 fundamental basis of actual incurred utility costs.

3 PURPA rates are based on estimates of long-term future supply costs. As a result,  
4 there have been problems in the utility industry with long-term electricity purchase  
5 contracts that utilities have signed with unregulated third parties based on PURPA rates. I  
6 refer specifically to instances where the long-term avoided cost estimates reflected in  
7 PURPA rates turned out to be much too high, and actual supply costs turned out to be  
8 significantly lower than the estimated future costs that were the basis of the contracts.

9 **Q. DOES THE SAVE-A-WATT PLAN RUN THE SAME RISKS AS YOU HAVE**  
10 **CITED WITH OTHER PURPA-TYPE CONTRACTS?**

11 A. Yes, it does. Under Save-A-Watt, payments to the utility would be locked in  
12 based on avoided costs estimated for many years out into the future. If actual future  
13 supply costs should prove lower than the stream of projected supply costs that would be  
14 used for each year's vintage of Save-A-Watt programs, that would not reduce the PURPA  
15 type payments back to Duke, for these will be at locked in high prices, and Duke's profits  
16 could be even higher than the excessive levels I discussed in my direct testimony.

17 **Q. ON PAGE 10 OF HIS REBUTTAL TESTIMONY, MR. SHULTZ STATES THAT**  
18 **ONLY INFORMATION ABOUT SAVE-A-WATT THAT DUKE CLAIMS**  
19 **REQUIRES CONFIDENTIALITY PROTECTION IS "AVOIDED COST**  
20 **CALCULATIONS." IS THIS CORRECT?**

21 A. No, it is not. The Company has also held confidential the amounts and percentage  
22 of revenues that would be collected for load management versus the revenues for energy  
23 conservation. The Company has declined to disclose the amounts and percentages of

1 Save-A-Watt revenues that would be attributable to their actual programs costs, versus  
2 net lost revenue recovery, versus additional profits from Save-A-Watt. Overall Company  
3 earnings with and without Save-A-Watt are also “confidential.” These basic metrics do  
4 not require revelation of avoided costs. These and other confidential metrics would allow  
5 interested members of the public to benchmark Duke’s proposal against other proposals.

6 Furthermore, I note that basic data regarding the long-term revenue requirement  
7 have been only partially disclosed. Mr. Stevie has provided the overall revenue charge for  
8 energy conservation, but not the corresponding figure for load shifting which can be  
9 translated into terms that would be understandable to a customer.

10 **Q. IN YOUR DIRECT TESTIMONY, YOU STATED THAT YOU WERE NOT**  
11 **AWARE OF ANY REGULATORY COMMISSION THAT PERMITS A UTILITY**  
12 **TO EARN ADDITIONAL SHAREHOLDER REWARDS FOR LOAD**  
13 **MANAGEMENT, ABOVE AND BEYOND RECOVERY OR PROGRAM COSTS.**  
14 **DID YOU NOTE MR. SCHULTZ’S STATEMENT THAT DUKE RECEIVED**  
15 **SOME REWARDS IN SOUTH CAROLINA 1992-1994, AND THAT REWARDS**  
16 **ARE OFFERED IN NORTH CAROLINA, OHIO, AND KENTUCKY?**

17 A. Yes, I did. I am glad to learn of the instances he cites. First, I would note that  
18 these instances appear to be traditional performance incentives, which provide a  
19 supplement to cost recovery that is fundamentally grounded in actual incurred utility  
20 costs. As such, these few cases radically differ from the Save-A-Watt scheme.

21 Further, the electric utility industry has over 30 years’ experience with load  
22 management, in virtually every state. The instances Mr. Schultz cites are exceptions to  
23 the well-established general practice of regulatory commissions over the decades

1 throughout the country, to limit cost recovery for load management to actual incurred  
2 program costs. From the viewpoint of regulatory principles, there is no reason to provide  
3 additional shareholder rewards to utilities for load management, let alone Duke's  
4 proposal for a reward that it projects would exceed program costs by well over a hundred  
5 percent.

6 **Q. DR. CICHETTI STATES ON PAGE 9 OF THIS REBUTTAL TESTIMONY**  
7 **THAT WITH SAVE-A-WATT, REGULATED REVENUE REQUIREMENTS**  
8 **WOULD BE LESS THAN WITH A WHOLLY GENERATION-BASED PLAN.**  
9 **DO YOU AGREE?**

10 A. In my direct testimony, I explained that with conventional cost recovery  
11 approaches, utilities pursue load management to meet service needs at lower cost than  
12 meeting them through a capacity addition, so as to reduce the overall costs of electric  
13 supply. In other words, long-run revenue requirements are reduced, just as they are when  
14 the most economical generation plant is chosen over a more costly one. Of course, these  
15 reductions do not begin until there is a base rate case to establish new rates that reflect the  
16 cost savings.

17 In contrast, Save-A-Watt would not create this potential for reducing revenue  
18 requirements. The potential to reduce revenue requirements is inherent in traditional,  
19 cost-based load management, and is the very reason it has been pursued successfully  
20 throughout the nation for decades.

21 What the Save-A-Watt PURPA-type scheme would do, however, is double the  
22 cost of load management to ratepayers. Thus, if there were still any reduction to revenue  
23 requirements with Save-A-Watt, it would have to be less than the reduction there would

1 be with utility cost recovery for load management treated as it traditionally has been in  
2 this and other jurisdictions.

3 In fact, Duke has not presented any evidence that regulated revenue requirements  
4 actually would be lower with Save-A-Watt than without it; there may well be no savings  
5 at all. But if there were, they would have to be smaller than the tested alternative of  
6 procuring demand-side resources on the basis of their actual costs to the utility.

7 **Q. MR. SHULTZ STATES THAT IT IS USEFUL FOR A UTILITY TO HAVE**  
8 **BUDGET FLEXIBILITY IN DELIVERING ENERGY CONSERVATION**  
9 **PROGRAMS. ON PAGE 15 OF HIS TESTIMONY, DR. CICHETTI ALSO**  
10 **ARGUES FOR FLEXIBILITY. BOTH WITNESSES SAY YOU ARE OPPOSED**  
11 **TO FLEXIBILITY IN DELIVERING DEMAND-SIDE PROGRAMS. PLEASE**  
12 **COMMENT.**

13 A. As my testimony indicates, I support budget flexibility. However, the Save-A-  
14 Watt PURPA-type payment scheme is not required to achieve flexibility. To the  
15 contrary, in many other jurisdictions, regulators do provide a reasonable amount of  
16 budget flexibility to comprehensive utility energy conservation programs, which helps to  
17 increase the impact of the programs. In any reapplication to this Commission to conduct  
18 energy conservation programs under a sound, cost-based approach, with supplementary  
19 performance incentives, I would encourage the utility to also submit suggested provisions  
20 for budget flexibility.

21 I oppose micromanagement and inflexibility. Flexibility cannot be unlimited, for  
22 regular regulatory oversight is needed, in the form of periodic review of proposed  
23 programs, initial budgets, and program performance. But flexibility can be substantial: in

1 their conservation market potential study for Duke, *Duke Energy Carolinas DSM Action*  
2 *Plan*, the Company's consultants recommended several types of flexibility that are fully  
3 consistent with an appropriately cost-based cost recovery framework for utility energy  
4 conservation programs. Flexibility is also appropriate in conducting load management.

5 **Q. MR. SCHULTZ, ON PAGE 7 OF HIS PRE-FILED DIRECT TESTIMONY,**  
6 **STATES THAT INCENTIVES BASED ON A PERCENTAGE OF UTILITY**  
7 **COSTS ENCOURAGE SPENDING. DO YOU AGREE?**

8 A. Yes, I do. Of course, I do not advocate incentives based on a percentage of  
9 spending. I advocate consideration of shareholder incentives based on performance, but  
10 with some upper limit to protect ratepayers. One common upper limit is a percentage of  
11 actual program costs, such as 10 percent. The upper limit is to prevent the total cost of  
12 conservation to ratepayers, including any incentive, from deviating excessively from the  
13 utility's actual incurred costs.

14 Because it is not linked to or limited by program costs in the way I have just  
15 described, the Save-A-Watt program would deliver energy conservation at much too high  
16 a ratepayer cost per KWh saved. In fact, on page 8 of his rebuttal testimony, Mr. Stevie  
17 states that the overall revenue charge for energy conservation under Save-A-Watt is  
18 projected by the Company to equal \$0.052/KWh saved. This is double the revenue  
19 charge to deliver conservation experienced by several utilities with successful  
20 conservation programs in other jurisdictions. There are several sources that document  
21 this; for example, the *National Action Plan for Energy Efficiency* (Table 6-3) identifies  
22 eleven programs with reported lifetime costs of 3 cents per kWh or less. Notably, the  
23 reported avoided costs associated with those programs ranged from 3 to 7 cents per kWh,



1 suggesting that these programs are not succeeding due to having high energy costs. It is  
2 the Save-A-Watt PURPA-type scheme which would directly and necessarily cause high-  
3 cost conservation, not the industry's standard approach to conservation program cost  
4 recovery.

5 **Q. DO WITNESSES SCHULTZ AND CINCCHETTI COMMENT ON EXHIBIT NO.**  
6 **6 IN YOUR DIRECT TESTIMONY, WHERE YOU COMPARE DUKE'S**  
7 **PROJECTED ENERGY CONSERVATION ACHIEVEMENTS WITH THE**  
8 **ACHIEVEMENTS OF A NUMBER OF INDUSTRY LEADERS?**

9 A. Yes, they do. That exhibit has a table highlighting several utilities that have  
10 achieved annual energy savings impacts of at least one percent of sales, which I contrast  
11 with Duke's maximum projected annual impact from Save-A-Watt (one-quarter of one  
12 percent). I consider these data relevant because Duke's witnesses say they strive to be  
13 national leaders in energy conservation, yet their plans fall below what actual national  
14 leaders have done and are planning to do.

15 Mr. Schultz states that many utilities have achieved annual conservation program  
16 impacts of 0.15 to one percent of annual sales. I agree. In fact, a large number of utilities  
17 around the country have achieved impacts between Duke Energy's projected maximum  
18 annual level of 0.25 percent and one percent. Although their achievements are also  
19 relevant in assessing Duke's claim that it plans for national leadership, I simply did not  
20 include them in the table.

21 Dr. Cicchetti adds to my table the fact that the utilities I list had shareholder  
22 incentives for energy conservation performance. He is correct, except for the two  
23 California utilities, where incentives were instituted after the year used in my table. Of

1 course, these are all supplemental performance incentives, added to cost recovery that is  
2 based squarely and directly on the utility's incurred program costs; as such, they  
3 fundamentally differ from Save-A-Watt. Dr. Cicchetti also notes that two of these  
4 utilities (his footnote 2 shows it is three) benefited from either a revenue decoupling  
5 arrangement or a lost margin adjustment.

6 Dr. Cicchetti seems to think the information he added to the table rebuts  
7 something in my direct testimony. It does not. I simply stated that each listed utility  
8 operates in jurisdictions where there are most or all of these key elements: regulatory  
9 requirements for conservation achievements; direct program cost recovery; a means of  
10 addressing revenue erosion, if needed; and utility performance incentives. Such proven  
11 approaches are, in fact, what we would advise Duke to assemble in a request from this  
12 Commission.

13 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

14 **A.** Yes, it does.

## CERTIFICATE OF SERVICE

I hereby certify that the following persons have been served with the Southern Environmental Law Center (SELC), Southern Alliance for Clean Energy (SACE), the South Carolina Coastal Conservation League (CCL), and Environmental Defense (ED) surrebuttal testimony of David Nichols:

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This 28th day of January, 2008.

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S/Kate Double  
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